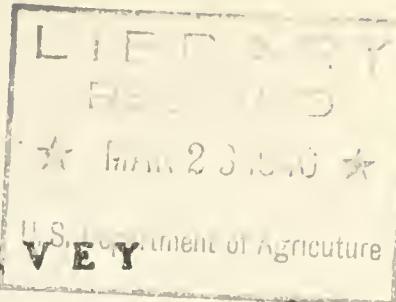


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THE INSECT PEST SURVEY  
BULLETIN

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Volume 20

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Number 1

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## THE MORE IMPORTANT RECORDS FOR FEBRUARY

Fuller's rose beetle was not very materially affected by temperatures ranging from  $4^{\circ}$  to  $15^{\circ}$  below zero in parts of Georgia. Of 57 beetles collected 53 were dead. This is approximately the same proportion of mortality as occurred in previous winters.

Seed-corn maggot was generally prevalent in southern Virginia and South Carolina.

A spring survey indicates 34 percent of the wheat plants in some sections of Illinois infested with hessian fly.

The corn lanternfly was collected late last year in New Jersey.

Very mild winter weather was accompanied by activity of the alfalfa weevil in the San Joaquin Valley of California.

Pea aphid is practically absent in parts of Louisiana as a result of the killing of peas in that region by the cold weather. In California this insect is quite abundant in alfalfa fields in the San Joaquin Valley.

The vetch bruchid was recorded late in January in a mill in Linn County, Oreg., 10 miles south of any previous record.

Practically all stages of the sugarcane borer in standing cane were killed by the cold weather. Those in buried trash are coming through the winter in very good condition.

San Jose scale did not suffer any unusual mortality, despite the cold weather in southern Illinois, where  $15^{\circ}$  below zero Fahrenheit was recorded at most of the places where samples were taken.

Very heavy infestations of the eye-spotted budmoth were observed in the Santa Clara Valley of California where they did considerable damage to French prunes last year.

The European red mite is apparently on the increase in northwestern Virginia. Eggs of this mite are also reported as being very numerous in Connecticut.

Citrus aphid is very scarce in Florida, as is also citrus whitefly and Florida red scale, due largely to partial defoliation of citrus caused by the cold weather. Purple scale is passing the winter successfully, as but little wood was killed.

A heavy infestation of the potato psyllid was reported from Hidalgo County, Tex., early in January.

The banded cucumber beetle has consistently decreased with each cold spell during the winter and these insects disappeared entirely during the last cold wave.

In parts of southern California, cabbage is 45-percent infested by the imported cabbage worm.

The heaviest infestation of sweetpotatoes by the sweetpotato leaf beetle was observed on storage potatoes in Arkansas this past winter.

Pepper weevils survived the winter in very large numbers in southern California, the survival being five times that normally observed. Due to the mild winter the weevils did not migrate from the pepper plants to nightshade, except where the pepper plants were entirely destroyed.

Household infestations by the brown dog tick were reported from New York, Michigan, Illinois, and Kansas.

## GENERAL FEEDERS

### EUROPEAN EARWIG (Forficula auricularia L.)

California. A. E. Michelbacher (February 24): Careful search made by the reporter for the European earwig in an area in Berkeley that is sometimes rather heavily infested. Not a single individual encountered up to the present.

### SUGAR-BEET WIREWORM (Limonius californicus Mann.)

California. M. W. Stone (February 9): Sugar-beet wireworms found in a lima-bean field near Oxnard, Ventura County, attacking edible species of mushrooms that had just emerged through the soil after a heavy rain. As many as 16 wireworms found on a single mushroom, feeding inside the stalk and on the underground portion. Two full barrels of infested mushrooms dug up in this 60-acre field.

### WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California. A. E. Michelbacher (January 3): Found in abundance in the San Joaquin Valley on December 19, 1939. In one field what is believed to have been a newly emerged adult was collected and copulating beetles were observed throughout the area. (February 24): The number of beetles collected in the San Joaquin Valley on February 12 per 100 sweeps ranged from 1 to 11. The number collected in the different fields in the region adjacent to the San Francisco Bay on January 18 ranged from 4 to 81.

### FULLER'S ROSE BEETLE (Pantomorus godmani Crotch)

Georgia. T. L. Bissell (February 27): Minimum temperatures at Experiment, central Georgia, in January and February were -15.6° and -4.4° F. respectively. Weevils scarce in collections made thereafter, with the exception of P. godmani, 2 alive and 53 dead. However, collections of this species in 2 previous winters showed the same proportion of dead.

### CUTWORMS (Noctuidae)

Florida. J. R. Watson (February 21): Some damage, but less than is usual during warmer winters.

California. J. Wilcox and L. B. Reed (January 22): Variegated cutworm (Peridroma margaritosa Haw.) quite numerous in parts of a 10-acre potato field at Oceanside, southern California. Serious enough to justify use of control measures. About 1 out of 10 acres of young lima beans killed.

## CEREAL AND FORAGE - CROP INSECTS

### WHEAT

#### CHINCH BUG (*Blissus leucopterus* Say)

Indiana. C. Benton (February 21): To determine winter mortality in hibernation quarters, 22 one-fifth-square-foot samples of Andropogon furcatus and A. scoparius were collected on January 31 from 2 localities in Tippecanoe County and 1 locality in Benton County. Mortality found to be 27 percent, based on the recovery of 3,255 live and 1,215 dead bugs. Weather in this area unusually cold, especially in January, with frequent temperatures below zero. The ground was snow-covered during much of this period.

Illinois. W. P. Flint (February 23): A number of samples of hibernating bugs brought in from favored situations, all being taken in the east-central part of the State. In nearly all cases the bugs were protected by snow during the lowest temperatures, and survival is quite high, probably a little above normal.

Missouri. L. Haseman (February 23): Preliminary checkups in central Missouri on hibernating chinch bugs indicate low winter mortality.

Oklahoma. R. G. Dahms (February 26): Recent surveys indicate that winter mortality in southwestern Oklahoma was less than 5 percent, despite the fact that January was the second coldest month on record.

#### HESSIAN FLY (*Phytophaga destructor* Say)

Illinois. D. W. LaHue (February 21): Material collected on February 16 from a heavily infested field of fall-planted wheat near Chrisman showed 34 percent of the plants to be infested with full-grown larvae and some puparia. Many other plants showed characteristic injury, but only shriveled remains of larvae could be found. On December 14, 1939, this field showed 50 to 75 percent of the plants to be infested with larvae of all sizes, mostly half-grown or over; no puparia were found. Examination of material from another heavily infested field of volunteer wheat nearby showed all larvae in puparia on December 14. Puparia examination made from material collected on February 16 showed out of 125 puparia, 106 containing live larvae, 10 dead larvae, 4 dead pupae, and 5 empty puparia, showing some fly emergence late last fall.

### CORN

#### CORN EAR WORM (*Heliothis armigera* Hbn.)

Mississippi. C. Lyle (February 23): Larvae found feeding on chrysanthemum flowers at State College late in October 1939. Similar damage reported from Jackson County, but no larvae found.

California. A. E. Michelbacher (January 3): A single larva taken in the San Joaquin Valley on December 19. Later found to be parasitized by Hyposoter exiguae Vier.

CORN LANTERNFLY (Peregrinus maidis Ashm.)

New Jersey. G. W. Barber (December 27, 1939): Specimens collected in New Jersey. Apparently not recorded from New Jersey heretofore. (Det. by P. W. Oman.)

ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

California. A. E. Michelbacher (January 3): One of the warmest falls experienced in lowland central California. In the northwestern part of the San Joaquin Valley, the alfalfa has continued to make some growth, some being 4 to 10 inches high on December 19, 1939. Alfalfa weevil found very active under these conditions, both larvae and adults being rather abundant. In the more heavily infested fields, as many as 81 adults and 240 larvae were collected per 100 sweeps of an insect net. Many of the larvae were small. In the less heavily infested part of the valley the population was small, and not more than 1 or 2 larvae or adults collected per 100 sweeps. In the heavily infested area 1 percent of alfalfa stems examined contained eggs. Altogether 7 batches of eggs were found, all at about the end of the incubation period. (February 24): On January 18 in the region adjacent to the San Francisco Bay, from 0 to 10 larvae were collected per 100 sweeps. No adults collected. In the last survey in the San Joaquin Valley, conducted on February 12, the number of larvae per 100 sweeps ranged from 0 to 690, and adults from 0 to 22. Over a rather limited area near Tracy the weevil was rather abundant. Alfalfa ranged from less than one-fourth to one-third grown. Adult Bathyplectes curculionis Thoms. were collected in fairly large numbers. Apparently they had only recently emerged from the long-cycle cocoons, as the number of parasitized larvae was rather small, only about 5 percent, as determined by rearing out the parasites from last-instar larvae collected in the field.

ALFALFA CATERPILLAR (Colias eurytheme Bdv.)

California. A. E. Michelbacher (January 3): In nearly all the alfalfa fields examined in the San Joaquin Valley on December 19, 1939, larvae were collected, the number ranging between 2 and 15, some of which were parasitized. (February 24): The number of larvae collected per 100 sweeps in different fields in the San Joaquin Valley on February 12 ranged from 0 to 5. Most of them were small and several found to be parasitized by Apanteles flaviconchae Riley. Number of larvae collected in the region adjacent to the San Francisco Bay on January 18 ranged from 1 to several, most of which were small and a number parasitized by A. flaviconchae.

PEA APHID (Macrosiphum pisi Kltb.)

Louisiana. C. O. Eddy (February 24): Normally the pea aphid occurs at University more or less abundantly throughout the winter. This year none have appeared. Peas have been killed, but alfalfa is doing well again after severe setbacks in growth owing to cold weather.

California. A. E. Michelbacher (January 3): Rather abundant to very abundant in alfalfa fields in the San Joaquin Valley on December 19. Large numbers had been killed by a fungus, and dead were noted everywhere.

A LEAFHOPPER (Aceratagallia uhleri Van D.)

Texas. R. K. Fletcher (February 22): Observed on alfalfa and clover at Dublin, Erath County, on January 15.

VETCH

VETCH BRUCHID (Bruchus brachialis Fahraeus)

Oregon. L. P. Rockwood (January 26): Specimens of hairy vetch seed and weevils received from Linn County, collected in a mill at Albany. This is the first record obtained for Linn County and is about 10 miles farther south than the reporter was able to get them by sweeping late in May 1939. It has been observed that the weevils appear to have spread farther in and near the hills than out in the valley. This seems to be true for both sides of the Cascade Mountains, and both north and south.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis F.)

Louisiana. A. L. Dugas (February): Limited records indicate that approximately 90 percent of overwintering borers are dead. Apparently all stages hibernating in standing cane or corn were killed by the freezes. Mortality in cane trash buried before the freezes is not nearly so high as in standing stalks.

SUGARCANE ROOTSTOCK WEEVIL (Anacentrinus subnudus Buch.)

Louisiana. A. L. Dugas (February): Weevils working in cane stubbles show no detrimental effects from the freezes. They are active, and the mortality is very low.

## F R U I T I N S E C T S

### FLATHEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Mississippi. C. Lyle (February 23): Larvae received from Washington County on October 23, 1939, with information that they were taken from a pecan tree. Reports of injury to apple received from Lee County in November 1939.

### SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Mississippi. C. Lyle (February 23): Report of injury to plum trees received from Lauderdale County in December 1939.

### A BORER (Scolytus sulcatus Lec.)

Connecticut. P. Wallace (February): Larvae found in apple in North Haven in November 1939.

### WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Delaware. E. P. Felt (February 24): Reported as abundant on cherry and lilac near Wilmington.

### SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia. O. I. Snapp (January 18): Reproduction observed today at Fort Valley, central Georgia. Reproduction takes place throughout the winter in this latitude. Recent observations show that crawlers under female scale coverings were killed by temperature of 18° F. Infestation in central Georgia now greater than that of an average year.

Illinois. W. P. Flint (February 23): Overwintering scale in southern Illinois show from 20 to 30 percent survival, which is about normal and does not show any appreciable kill from the low temperatures encountered during the last 2 months, minimum temperatures of most sections from which samples were obtained having been -12° to -15° F.

## APPLE

### APPLE APHIDS (Aphiidae)

Connecticut. P. Garman (February 19): Eggs of Anuraphis roseus Baker and Aphis pomi Deg. are much less abundant on apple than last year.

Virginia. W. S. Hough (February 20): Eggs not numerous in the orchards of northern Virginia. About 50 miles south of Winchester the number of eggs increases considerably. During the fall months approximately 20 to 40 percent of the aphids found on apple foliage were A. roseus, either migrants or oviparous forms.

### CODLING MOTH (Carpocapsa pomonella L.)

Georgia. J. E. Webb, Jr. (February 29): Examination of numerous hibernating larvae at Cornelia indicate practically no mortality from the unusually cold winter. Larvae are still completely dormant.

Illinois. W. P. Flint (February 23): Examinations of overwintering larvae in several orchards in western Illinois have shown a very high survival, both on the trunks of trees and below the snow line.

Missouri. L. Haseman (February 23): Recent checks in northwestern Missouri indicate that above the snow line in some orchards, approximately 75 percent of the hibernating larvae were dead a week ago. Breeding material in exposed outdoor screened cages at Columbia does not show such a high mortality.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

General. E. P. Felt (February 24): Eggs occur in small numbers in southwestern New England and southeastern New York.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

Missouri. L. Haseman (February 23): Egg surveys made during the fall and early winter indicate that this insect has definitely moved westward, so that infestation, including up to 20 or 30 egg packets to a tree, is now found as far west as central Missouri. A recent checkup on exposed egg packets indicates that in central Missouri the low temperatures have not seriously harmed hibernating eggs, though some growers in the Saint Louis area report that part of the eggs in that area have been damaged by the cold.

EYE-SPOTTED BUTMOTH (Spilonota ocellana D. & S.)

California. L. M. Smith (February): Now known to occur in several orchards in the Santa Clara Valley. During the last season it did considerable damage to French prunes and was particularly destructive to President plums. Hibernacula now abundant and estimated to occur at the rate of 100 to 500 per tree. (Det. by H. H. Keifer.)

COMSTOCK'S MEALYBUG (Pseudococcus comstocki Kuw.)

Virginia. W. S. Hough (February 20): In Virginia there are three general areas of infestation, namely, the Crozet area, the Roanoke area, and the Winchester area. In each of these areas large numbers of eggs occur on trees in heavily infested orchards.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Connecticut. P. Garman (February 19): Eggs very abundant in most apple orchards in Connecticut.

Virginia. W. S. Hough (February 20): Eggs more numerous in many orchards in the Winchester area than observed in previous seasons. Apparently on the increase in Virginia. Red spiders (Tetranychus sp.) are hibernating in large numbers in a couple of orchards in the Winchester area. Eggs of F. pilosus apparently not abundant in the orchards where the red spiders are abundant. (Det. by E. A. McGregor.)

PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Illinois. W. P. Flint (February 23): According to reports of examinations in the peach orchards of southern Illinois, fruit buds on peach are practically all killed with the exception of those in orchards in the southern Illinois counties of Pulaski and Massac. This will probably have some effect on the population during the coming summer.

Mississippi. C. Lyle (February 23): Injured peach twigs sent in from Sunflower County early in November 1939.

PEACH BORER (Conopia exitiosa Say)

Mississippi. C. Lyle (February 23): Reports of injury to peach trees received from Clarke and Copiah Counties in December 1939, and from Monroe County in February.

Nebraska. M. H. Swenk (February 20): Reported as attacking peach trees in Otoe County on December 4, 1939.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. O. I. Snapp (January 30): Live adults found in Johnson and Bermuda grasses today at Fort Valley after a minimum temperature of 9° F. on January 27, and a daily minimum range of 9° to 20° F. during the 6 days previous.

CHERRY

CHERRY SCALE (Aspidictus forbesi Johns.)

West Virginia. G. H. Geissler (February 26): Specimens of cherry with scale on them were collected at Kearneysville, Jefferson County, in the northeastern corner of the State. (Det. by H. Morrison.)

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

Washington. J. F. Cooper and E. J. Newcomer (December 7, 1939): Hibernating adult not hard to find in Spokane County in trash at bases of trees, and under loose bark and in cracks in bark on pear trees as high as 8 or 10 feet above the ground.

PLUM

A MITE (Eupalopsis mali Ewing)

California. L. M. Smith (February 15): Found hibernating in the hibernacula of Spilonota ocellana D. & S. on President plums in the vicinity of San Jose. Found in the silken cases which had been abandoned by the budmoth larvae, 10 to 20 frequently being found in a single case. Also collected on August 29, 1939, on the lower surfaces of leaves of French prune at Cloverdale. Only

mature males and females found at that time. No commercial damage has come to the writer's attention to date. The writer believes that this is the first reference to E. mali in California. (Det. by E. A. McGregor.)

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Ohio. G. A. Runner (February 26): One hundred cocoons kept under outdoor conditions at Sandusky were examined on February 24. Mortality of 20 percent found, this being somewhat above February records for 1937 and 1938. Snow has covered ground since January 1, although light, and has been nearly continuous, while the minimum temperature has been -11° F.

PECAN

PECAN WEEVIL (Curculio caryaec Horn)

Mississippi. C. Lyle (February 23): Pecans injured by this weevil were sent from Monroe County early in December 1939.

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

New Jersey. E. P. Felt (February 24): Found in injurious numbers on oak at Bound Brook.

Mississippi. C. Lyle (February 23): Specimens received from Lowndes County on water oak and from Leflore County on pecan.

HICKORY SHUCKWORM (Laspeyresia caryana Fitch)

Georgia. G. F. Mozzette (February 29): Despite the low temperatures during January and February at Albany, the mortality of the hickory shuckworm was not affected. Spring pupation, however, is retarded, for the first overwintering larva to pupate was found on February 23 whereas the first pupation was observed during the first week in February in 1937, 1938, and 1939.

Mississippi. C. Lyle (February 23): Specimens received from Jones and Sunflower Counties in November and from Monroe County in December 1939. Reports of injury from Holmes County in November 1939 and from Monroe County in January.

GIANT APHID (Longistigma caryae Harr.)

Georgia. O. I. Snapp (December 11, 1939): Now very abundant on pecan trees at Byron, Peach County, central Georgia.

CITRUS

GREEN CITRUS APHID (Aphis spiraecola Patch)

Florida. J. R. Watson (February 21): Owing to the unusually cool weather since the middle of December 1939 and the recent freeze, this aphid is very scarce.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida. J. R. Watson (February 21): Partial defoliation of citrus trees, owing to cold weather, will reduce the numbers, but in only comparatively small areas was defoliation complete, so that this diminution in numbers probably will not be of long duration.

Mississippi. C. Lyle (February 23): Specimens received late in October from Forrest and Harrison Counties, where they were feeding on gardenia.

FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Florida. J. R. Watson (February 21): Numbers reduced by cold weather, but trees not sufficiently defoliated for this condition to last long.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Florida. J. R. Watson (February 21): Although partial defoliation of citrus trees occurred, owing to the cold weather, the wood generally was not killed and the purple scale will go over on that, as well as on the leaves and fruit that did not fall.

FIG

FIG SCALE (Lepidosaphes ficus Sign.)

California. C. K. Fisher (February 16): Oviposition began at Fresno today. In 1939 oviposition began about March 4. The winter of 1939-40 has been unusually mild in the San Joaquin Valley.

BLASTOPHAGA (Blastophaga psenes L.)

California. G. H. Kalostian (February 15): Full-grown larvae were dissected from galls in mammae caprifigs collected on January 12 at Fresno. In a second collection, made today, wasps of both sexes were found in the galls ready for emergence.

T R U C K - C F O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Klug)

Mississippi. C. Lyle (February 23): Adults sent from Forrest County in November 1939; they had been feeding on cabbage and turnips.

M. M. High (January 29): Practically all vegetable crops in southern Mississippi injured, with the exception of English peas. The insect is becoming more seriously injurious each season to turnips and other cruciferous crops.

Louisiana. C. E. Smith and R. W. Brubaker (February 29): Very scarce on old turnips which escaped killing by the freezes. Casual observations and lack of complaints from growers indicate the pest was much less abundant previous to freezes than it had been for 3 or 4 years.

CUCUMBER BEETLES (Diabrotica spp.)

Mississippi. C. Lyle (February 23): Adults of the banded cucumber beetle (D. balteata Lec.) and of the spotted cucumber beetle (D. duodecimpunctata F.) sent from Scott County in November 1939 with information that chrysanthemum flowers were being injured.

Louisiana. C. O. Eddy (February 24): Unusually cold weather and storms in Louisiana. However, D. duodecimpunctata has become active in small numbers. During the course of the winter, the number of D. balteata has consistently decreased at each cold spell. They disappeared entirely during the last one and none have reappeared.

APHIDS (Aphididae)

Florida. C. B. Wisecup (February 23): A small, steady population of aphids can be found on most vegetable crops at Sanford.

Texas. F. L. Thomas (February 22): An aphid, possibly Macrosiphum ambrosiae Thos., was observed on lettuce at Edinburg, Hidalgo County, on February 13.

TRUCK INSECTS (Lepidoptera)

Florida. J. R. Watson (February 21): Particularly scarce at present. Cold weather has undoubtedly delayed their emergence from pupal cases.

A MIRID (Engyptatus geniculatus Reut.)

California. R. Cecil (December 5, 1939): Nymphs and adults numerous on late squash at Ventura, feeding on small summer and Italian varieties, causing deformities, reduction in size, and slow growth. (Det. by H. G. Barber.)

A CICADELLID (Empoasca solana DeL.)

California. M. K. Hess (February 16): Collected on leaves of nightshade and lemon trees at Fallbrook, San Diego County. (Det. by P. W. Oman.)

PLANT BUGS (Lygaeidae)

Georgia. T. L. Bissell (February 27): Minimum temperatures at Experiment, central Georgia, in January and February were  $-15.6^{\circ}$  and  $-4.4^{\circ}$  F., respectively. Collections of Paromius longulus Dall. made thereafter showed a total of 18 alive and 34 dead, whereas collections of Orthaea basalis Dall. totaled 9 alive and 5 dead.

POTATO AND TOMATO

TOMATO PINWORM (Keiferia lycopersicella Busck)

California. J. C. Elmore (December 19, 1939): Although not reported as being of much commercial importance in most tomato-growing areas this season, this insect has built up to injurious numbers in many of the very late tomato fields of Los Angeles and Orange Counties, 25 to 50 percent of the late pickings being damaged in some cases.

BEET ARMYWORM (Laphygma exigua Hbn.)

California. J. C. Elmore (December 18, 1939): Potatoes severely damaged near Oceanside, San Diego County, during late November and early December. Autographa sp. was also found doing some injury.

POTATO PSYLLID (Paratrioza cockerelli Sulc.)

Texas. P. T. Riherd (February 22): Heavy infestation on potato at Weslaco, Hidalgo County, on January 1.

California. J. Wilcox (January 15): Older potato field of about 60 acres at Oceanside, southern part of the State, heavily infested; grower estimates only one-quarter of crop will be harvested. Younger fields show scattered infestations with only about 5 percent damage to date.

GARDEN FLEA HOPPER (Halticus citri Ashm.).

Texas. P. T. Riherd (February 22): Observed on tomato at Weslaco on January 1.

THrips (Thysanoptera)

Utah. G. F. Knowlton (March 1): Damaging potatoes, eggplant, and beans in experimental greenhouse at Logan.

GARDEN CENTIPEDE (Scutigerella immaculata Newp.)

Pennsylvania. G. B. Sleesman (January 12): Considerable trouble with

roots of rose bushes being destroyed in greenhouses at Toughkenamon, near Kennett Square. (Det. by T. L. Guyton.)

Utah. G. F. Knowlton (December 6, 1939): A millipede, Blaniulus guttulatus Bosc., was abundant and seriously damaging bulbs, flowers, and vegetable garden plants at Richfield on October 5. Millipede damage by several species was more frequently reported during 1939 than during any year in the reporter's experience in Utah. (Det. by P. V. Chamberlin.)

#### SOWBUGS (Oniscidae)

R. K. Fletcher (February 22): Two heavy infestations reported, one from Fort Worth, Tarrant County, and one from Dallas, Dallas County, on January 24 and 28, respectively.

#### BEANS

##### MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Georgia. T. L. Bissell (February 27): Following minimum temperatures of  $-15.6^{\circ}$  and  $-4.4^{\circ}$  F., respectively, in January and February at Experiment, collections totaled 48 alive and 3 dead.

Alabama. J. M. Robinson (February 29): Beetles were taken in hibernation under the pine needles around pine trees.

##### BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Georgia. T. L. Bissell (February 27): Despite low minimum temperatures at Experiment, collections made thereafter totaled 7 alive and 1 dead.

#### CABBAGE

##### IMPORTED CABBAGE WORM (Pieris rapae L.)

Louisiana. C. E. Smith and R. W. Brubaker (February 29): Field population of the larva was reduced from an average of over 100 per 100 collard plants to about 2 per 100 collard plants by the January freezes. Some pupae survived the freezes, and a total of 4 adults have been observed in the field at Baton Rouge during the last few days of February.

California. J. Wilcox (January 15): Cabbage is just beginning to head at Olive, southern California; 45-percent infested.

##### CABBAGE LOOPER (Autographa brassicae Filey)

South Carolina. W. J. Reid, Jr. (February 29): In spite of the fact that temperatures have been below normal throughout the winter in the Charleston area, a few cabbage loopers have been found on cabbage. During the coldest part of January several larvae of various

sizes were observed to have penetrated the center portion of heads of cabbage of the fall crop, evidently seeking protection. The present population appears to be about what is found during the average season.

Florida. J. R. Watson (February 21): There are some cabbage loopers on cabbage.

Louisiana. C. E. Smith and R. W. Brubaker (February 29): A single larva was observed on cabbage at Houma, February 26, while none have been found in the field at Baton Rouge, since the low temperatures which occurred the last half of January. The population was at a very low ebb for about a month previous to freezes. The population of this species is normally from low to absent on field crucifers in this area from about the middle of December to the last of March or first of April, and seldom reaches destructive numbers until the latter part of April.

Texas. P. T. Riherd (February 21): The cabbage looper was observed on cabbage at Starr, Hidalgo County, and in Cameron County from January 1 to 15.

#### DIAMONDBACK MOTH (*Plutella maculipennis* Curt.)

South Carolina. W. J. Reid, Jr. (February 29): Despite the below normal temperatures in the Charleston area, this insect has been found in limited, but apparently about normal, numbers throughout the winter. A small brood of larvae developed on young plants of the spring crop of cabbage during January and early in February, pupated about the middle of the month, and newly hatched larvae of what appears to be another brood were found on February 29. As usual, the low temperatures seem to hold the species in check.

Louisiana. C. E. Smith and R. W. Brubaker (February 29): Observations made from Baton Rouge to near the Gulf coast south of Houma, indicate that the larvae survived the January freezes better than either the cabbage looper or the imported cabbage worm. In counts made on collards at Baton Rouge, during several weeks previous to and since the freezes, there was little difference in the population, which consisted of an average of approximately 50 larvae per 100 collard plants.

Texas. P. T. Riherd (February 22): Diamondback moth observed on cabbage at Starr, Hidalgo County, and in Cameron County from January 1 to 15.

California. J. Wilcox (January 15): At Olive, southern California, where cabbage is just beginning to head, 20 percent was infested with cabbage looper and diamondback moth larvae.

SEED-CORN MAGGOT (Hylemya cilicrura Pond.)

Virginia. H. G. Walker and L. D. Anderson (February 20): A large number of adults observed flying around in a field containing rotting cabbage and other decaying organic matter at Norfolk on February 19.

South Carolina. J. A. Berly (February 27): Reported as destructive to cabbage in the vicinity of Charleston.

W. J. Reid, Jr. (February 29): Apparently more abundant and injurious than usual in the Charleston area during the current winter season. It would appear that the unusually low temperatures, especially during January, have served to increase the amount of damage done by the insect. Numerous reports and observations of its injury to recently transplanted cabbage. The species was noted to have destroyed a large percentage of the germinating seed of a January planting of peas. Low temperatures and wet soils apparently delayed the germination of the peas and caused them to be more susceptible to attack by seed-corn maggots.

APHIDS (Aphididae)

Delaware. M. D. Leonard (February 16): Young cabbage plants in a greenhouse at Wilmington lightly to moderately infested by Myzus persicae Sulz. throughout January and during the first half of February.

Virginia. H. G. Walker and L. D. Anderson (February 20): Cabbage aphids have successfully overwintered on collards and Brussels sprouts at Norfolk.

South Carolina. J. A. Berly (February 27): Cabbage aphid observed in numbers on cabbage in the vicinity of Charleston.

BEETS

BANDED GREENHOUSE THRIPS (Hercinothrips femoralis Reut.)

Virginia. L. D. Anderson (January 4): Specimens collected on beets in a greenhouse at Norfolk. (Det. by F. Andre.)

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Virginia. H. G. Walker and L. D. Anderson (February 20): Present in a field of Hanover salad all winter at Norfolk and were observed giving birth to young aphids on February 13.

Mississippi. C. Lyle (February 23): Specimens on turnips received from Issaquena County early in December 1939.

Louisiana. C. E. Smith and R. W. Brubaker (February 29): Observations since the January freezes indicate that this aphid suffered a setback along with its host crops. However, there were a few present on nearly all old crop remnants which escaped being killed by the freezes.

Texas. F. L. Thomas (February 22): Found on radish at Edinburg, Hidalgo County, on February 13.

STRIPED FLEA BEETLE (*Phyllotreta vittata* F.)

Louisiana. C. E. Smith and R. W. Brubaker (February 29): Abundant on old turnips in several fields examined since low temperatures of January, indicating that the severe freezes had little or no serious effect on this species.

SPINACH

GREEN PEACH APHID (*Myzus persicae* Sulz.)

Virginia. H. G. Walker and L. D. Anderson (February 20): Spinach aphids were able to withstand the cold weather during January and continue to reproduce on spinach at Norfolk.

TARNISHED PLANT BUG (*Lugus pratensis oblineatus* Say)

Virginia. H. G. Walker and L. D. Anderson (February 20): Several observed crawling about on kale plants at Norfolk on February 19.

ONIONS

ONION THIRIPS (*Thrips tabaci* Lind.)

Florida. C. B. Wiscup (February 23): Steady increase on onions at Sanford.

Louisiana. C. O. Eddy (February 24): Thrips on onions apparently even more abundant than before the severe weather.

SWEETPOTATO

SWEETPOTATO LEAF BEETLE (*Typophorus viridicyaneus* Crotch)

Arkansas. D. Isely (January 31): Specimens received from Rogers, Benton County, where they were taken from a storage house. Injury the most extensive that the reporter has seen, although occasional injury has been found since 1923. Infested potatoes brought in from Rogers previously this year.

STRAWBERRY

STRAWBERRY ROOT APHID (Aphis forbesi Wood)

Virginia. H. G. Walker and L. D. Anderson (February 20): Eggs and young found in strawberry fields at Norfolk on February 13.

Utah. G. F. Knowlton (March 1): Aphids (Aphis sp.) are damaging strawberries in experimental greenhouse at Logan.

A RED SPIDER (Tetranychus sp.)

Virginia. H. G. Walker and L. D. Anderson (February 20): Found in a number of strawberry fields in the Norfolk area.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

California. J. C. Elmore (December 19, 1939): Not particularly numerous in Los Angeles County during the summer but now causing serious losses in bell pepper fields. Practically all of the immature pods infested in a field at San Fernando. (February 20): This pest has survived the winter in very large numbers in Orange and Los Angeles Counties. An average of 11 adults collected per cubic foot of nightshade and pepper foliage in two localities in each county. This is about 5 times the normal survival.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

Georgia. T. L. Bissell (February 27): Minimum temperatures at Experiment in January and February were  $-15.6^{\circ}$  and  $-4.4^{\circ}$  F. Only one dead specimen was collected thereafter, on February 5.

Alabama. J. M. Robinson (February 29): All boll weevils collected in the last few days have been dead.

Oklahoma. F. A. Fenton (February 20): Owing to weather conditions, the population of the boll weevil has undoubtedly been greatly reduced over much of the State, with the possible exception of the southeastern part.

FOREST AND SHADE - TREE INSECTS

FALL CANKERWORM (Alsophila pometaria Harr.)

General. E. P. Felt (February 24): Eggs reported as locally abundant in southwestern New England, southeastern New York, and in New Jersey.

New Jersey. F. A. Soraci (December 4, 1939): Adults observed in great numbers in Bergen County, especially along the Palisades.

SPRING CANKERWORM (Paleacrita vernata Peck)

Missouri. L. Haseman (February 23): Diggings in central Missouri on February 10 indicate that the males are ready to emerge, but none have been observed. A pupa brought into the laboratory at Columbia emerged in 24 hours.

A CERAMBYCID (Rhagium lineatum Oliv.)

Mississippi. D. W. Grimes (February 23): Live larvae and pupae found under the bark of a dead pine tree in Holmes County late in October 1939.

SNOWY TREE CRICKET (Oecanthus niveus Deg.)

New Jersey. E. P. Felt (February 24): Reported as somewhat generally injuring the small twigs of purple beech in Princeton.

A MITE (Eriophyes ceanothi Keifer)

Oregon. S. C. Jones and F. B. Bailey (February 19): Common on cinnamon bush (Ceanothus velutinus) in Lincoln County in coast range. (Det. by H. H. Keifer.)

ASH

BANDED ASH BORER (Neoclytus capraea Say)

Nebraska. M. H. Swenk (February 20): Specimens, taken from an ash block in Cedar County, were sent in on January 15.

LILAC BORER (Podosesia syringae Harr.)

Pennsylvania. E. P. Felt (February 24): Ash borers, possibly this species, reported as injuriously abundant on ash trees in the Philadelphia area.

CARPENTER WORM (Prionoxystus robiniae Peck)

Nebraska. M. H. Swenk (February 20): Complaints of attacks on ash trees received from Wayne County on December 22, 1939, from Kearney County on January 30, and from Saunders County on February 12.

ELM

AN ELM FLEA BEETLE (Altica ulmi Woods)

Connecticut. E. P. Felt (February 24): Found overwintering in numbers at Lakeville.

STEEL-BLUE GRAPEVINE FLEA BEETLE (Altica carinata Germ.)

Pennsylvania. G. B. Sleesman (February 13): Found hibernating around bases and under bark of American elms at Bryn Mawr, Montgomery County. Thousands found around several large elms. Hibernating beetles found near Norristown, also in Montgomery County.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Pennsylvania. G. B. Sleesman (February 19): Very heavy infestations on elms in the Philadelphia area.

Nebraska. M. H. Swenk (February 20): Inquiry on February 10 from Lincoln County as to control, indicating infestation on elm in that locality.

A SCOLYTID (Xyloterinus politus Say)

Connecticut. P. Wallace (February 19): Found on elm at Rocky Hill and Pomfret. Commonly found in dying elms throughout the State.

MAPLE

JAPANESE MAPLE SCALE (Leucaspis japonica Ckll.)

Pennsylvania. E. P. Felt (February 24): This scale is becoming abundant in the Philadelphia area.

PINE

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

General. E. P. Felt (February 24): This pest is increasing in numbers in southwestern New England.

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Comst.)

Virginia. F. R. Freund (February): A number of pupae collected from Pinus taeda and P. echinata at West Point on February 8. Four adults emerged on February 12.

WHITE-PINE WEEVIL (Pissodes strobi Peck)

General. E. P. Felt (February 24): Damage scatteringly present in southwestern New England.

PINE ROOT WEEVIL (Hylobius radicis Buch.)

General. E. P. Felt (February 24): Locally abundant in southwestern New England.

PINE BARK BEETLES (Ips spp.)

Pennsylvania. E. P. Felt (February 24): I. pini Say found breeding abundantly in several weak trees in the vicinity of Philadelphia.

Mississippi. D. W. Grimes (February 23): Specimens of I. avulsus Eich. taken from pine in Attala County early in November 1939. Live adults of I. calligraphus Germ. found under the bark of pine in Holmes County early in November.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Maryland. Mrs. E. Stunkle (December 18, 1939): On scrub pine at Tuscarora. (Det. by R. A. Cushman.)

WHITE-PINE APHID (Cinara strobi Fitch)

New York. E. P. Felt (February 24): Numerous eggs deposited on pine needles at Oceanside, Long Island.

PINE SPITTLE BUG (Aphrophora parallela Say)

Pennsylvania. G. B. Sleesman (February 19): Severe injury to several forest plantings of Scotch, Austrian, and jack pine in Schuylkill County. Infestations unusually heavy in the Philadelphia area. A smaller spittle bug, species undetermined, occurred on juniper.

SPRUCE BUD SCALE (Physokermes piceae Schr.)

Pennsylvania. E. P. Felt (February 24): This scale is increasing in numbers in the region about Philadelphia.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

New Hampshire. E. P. Felt (February 24): Found to be somewhat numerous on mugho pine.

Pennsylvania. G. B. Sleesman (February 19): Heavy infestations found in the Philadelphia area on Scotch, Austrian, red, and mugho pines.

SPRUCE

SITKA SPRUCE BEETLE (Dendroctonus obesus Mann.)

Alaska. F. P. Keen (February 16): According to report, the only known infestation of any magnitude in Alaska, as of November 15, 1939, is one in the Kodiak-Afognak group of islands, at the extreme edge of tree growth in Alaska. Hasty inspection this summer indicated that the infestation is subsiding somewhat but is still very extensive, although the infestation has not aroused much interest owing to the rare use and the poor grade of timber in this locality.

COOLEY'S SPRUCE GALL (Adelges cooleyi Gill.)

New York. E. P. Felt (February 24): Somewhat prevalent at Chappaqua.

Pennsylvania. G. B. Sleesman (February 19): Very heavy on blue spruce and Douglas fir in the Philadelphia area.

EASTERN SPRUCE GALL APHID (Adolges abietis L.)

Pennsylvania. G. B. Sleesman (February 19): Very abundant on Norway spruce. Common in eastern Pennsylvania.

TULIPTREE

TULIPTREE SCALE (Toumeyella liriodendri Gmel.)

Connecticut. E. P. Felt (February 24): Somewhat abundant in the Stamford area, and in one locality generally infested with a fungus, probably a species of Aschersonia.

WILLOW

CURRENT STEM GIRDLER (Janus integer Nort.)

Pennsylvania. G. B. Sleesman (February 19): Willow sawfly very abundant on basket and other species of willow in the Philadelphia area.

I N S E C T S A F F E C T I N G G R E E N H O U S E

A N D O R N A M E N T A L P L A N T S

APHIDS (Aphidae)

Delaware. M. D. Leonard (January 17): An occasional alate of Rhopalosiphum rufomaculatum Wilson, only 10 in all, collected at Wilmington, in examining a number of small greenhouse chrysanthemum plants, which were somewhat infested with Macrosiphoniella sanborni Gill., and to a much less extent with Aphis gossypii Glov. (January 31): Only light to moderate infestations of M. sanborni maintained on greenhouse chrysanthemums at Wilmington during the month, although there seemed to be little parasitization. Light infestations of A. gossypii intermixed during the month with M. sanborni on chrysanthemum plants, but on a few plants or on some leaves, nearly all were A. gossypii, which became heavily parasitized by Lysiphlebus testaceipes Cress. (Det. by C. F. W. Muesebeck.) A moderate infestation of A. gossypii on many potted calendula plants in this greenhouse throughout the month; often considerably parasitized. Potted greenhouse cucumber plants more or less infested with A. gossypii, and many young to medium-sized potted mustard plants were also moderately infested by a mixture of A. gossypii and Myzus persicae Sulz. Heavy infestations of A. rumicis L. readily built up on nasturtiums during the month, with light intermixtures of M. persicae. (February 16): During the last 2 weeks, M. persicae has been gradually increasing on many greenhouse nasturtium plants infested formerly with almost pure cultures of A. rumicis. Infestation of potted mustard plants with M. persicae has built up recently until large leaves are now heavily encrusted with aphids on the undersides. Only occasional alates have developed. (February 23): During the last 2 weeks, light infestations of A. rumicis have become established on the leaves of several gladiolus plants in a section of the greenhouse in which nasturtiums were heavily infested for some time. A few days ago mustard leaves heavily infested with M. persicae were laid near a number of small nasturtium plants in the greenhouse. The aphids readily left the wilting mustard leaves for the nasturtiums, so that now the undersides of all the leaves are heavily infested.

Nebraska. M. H. Swenk (February 20): Reported on November 18, 1939, from Sarpy County that aphids were attacking some house plants.

FICKLE MIDGE (Sciara inconstans Fitch)

Nebraska. M. H. Swenk (February 20): Complaint from York County on February 4 of house plants being infested.

FLOWER THRIPS (Frankliniella tritici Fitch)

Florida. J. R. Watson (February 21): The Florida flower thrips are very scarce. There is practically no bloom on which they could live.

CITRUS MEALYBUG (Pseudococcus citri Risso)

Delaware. M. D. Leonard (February 13): Moderate infestations on a number of potted coleus plants in a greenhouse at Wilmington. Carefully examined and found to have a fair percentage of a hymenopterous parasite present. These seemed to emerge from about the second instar of the mealybug.

Nebraska. M. H. Swenk (February 20): Found to be attacking cactus, amaryllis, oleander, and other house plants in Holt County on December 18.

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum Westw.)

Utah. G. F. Knowlton (March 1): Attacking potatoes, young boxelder seedlings, eggplant, and rose foliage in a greenhouse at Logan.

OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

Pennsylvania. G. B. Slesman (February 19): Heavy infestations on lilac, ash, and birch trees in the Philadelphia area.

BARNACLE SCALE (Ceroplastes cirripediformis Comst.)

Mississippi. R.Z. Pepper (February 23): Infestation found in Jones County early in November 1939.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Delaware. E. P. Felt (February 24): Reported in small numbers on a greenhouse acacia at Wilmington.

SOFT SCALE (Coccus hesporidium L.)

Mississippi. C. Lyle (February 23): Specimens found on poinsettia in Hinds County in November 1939.

BUFFALO TREEHOPPER (Ceresa bubalus F.)

Nebraska. M. H. Swenk (February 20): Injured twig sent from Douglas County on December 12.

A RED SPIDER (Tetranychus sp.)

Mississippi. C. Lyle (February 23): Leaves of camellia, pecan, and other plants showing signs of injury have been received from Harrison, Jasper, and Wilkinson Counties since November 1939. Reports of injury to ivy, willow, cedar, and other plants received from Lauderdale, Marion, and Sharkey Counties since October.

MYRIAPODA

California. R. E. Campbell (November 20, 1939): Adults of Diploiulus luscus Meinert and Brachyiulus pusillus Leach have been attacking low-growing plants, especially violas, and pansies, and delphiniums at Pasadena and vicinity. Adults of Oxidus gracilis Koch have also been attacking low-growing ornamental plants at Pasadena. (Det. by H. F. Loomis.)

CACTUS

CACTUS SCALE (Diaspis echinocacti Bouche)

Mississippi. C. Lyle (February 23): Specimens sent from Noxubee County, where cactus was being injured early in January.

DOGWOOD

DOGWOOD CLUB GALL (Mycodiplosis alternata Felt)

New York. E. P. Felt (February 24): Reported as abundant at Cutchogue, Long Island.

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Mississippi. C. Lyle (February 23): Found on euonymus in Winston County on December 1, 1939, and received from a correspondent in Coahoma County, where it was found on a trailing euonymus on December 5.

FERN

FERN SCALE (Pinnaspis aspidistrae Sign.)

Mississippi. C. Lyle (February 23): Specimens sent from Yazoo County early in December 1939.

GLADIOLUS

TOBACCO THRIPS (Frankliniella fusca Hinds)

Florida. J. R. Watson (February 21): Some thrips sent in from gladioli, a sprinkling of Taeniothrips simplex Morison, but more of this pest.

JUNIPER AND CEDAR

DEODAR WEEVIL (Pissodes nomorensis Germ.)

Mississippi. D. W. Grimes (February 23): A total of 134 adults collected from a few deodar trees in Attala County at intervals of 3 to 11 days between November 7 and December 16, 1939.

JUNIPER SCALE (Diaspis carueli Targ.)

Pennsylvania. G. B. Sleesman (February 19): Heavy infestations occurring on ornamental junipers in the Philadelphia area.

Virginia. A. M. Woodside (March 4): Found to be very common in Augusta County, particularly on Irish juniper, some plantings of which have been almost killed out.

Nebraska. M. H. Swenk (February 20): Specimens of infested cedar twigs received from Deuel County on January 15.

OLEANDER

POLKA DOT WASP MOTH (Syntomeida epilais Walk.)

Florida. J. R. Watson (February 21): The only insect noticed that was actually killed by the recent cold was the caterpillar and moth of this species.

PALM

PALM-LEAF SKELETONIZER (Homaledra sabalella Chamb.)

Mississippi. H. Gladney (February 23): Injured palm leaves found in Harrison County late in November 1939.

ROSE

ROSE APHID (Macrosiphum rosae L.)

Dolaware. M. D. Leonard (January 31): Scattered specimens present during the month on many greenhouse rose plants at Wilmington. All were nearly mature alates and all parasitized.

I N S E C T S   A T T A C K I N G   M A N   A N D  
D O M E S T I C .   A N I M A L S

M A N

BEDBUG (Cimex lectularius L.)

Massachusetts. A. I. Bourne (February 23): Specimens received late in January that had been taken from poultry houses at Wrentham, Norfolk County, in eastern Massachusetts. Accompanied by the report that the houses were literally overrun by them. While such reports have been received before, comparable conditions have never been encountered. (Det. by H. G. Barber.)

Nebraska. M. H. Swenk (February 20): Reports from Stanton and Frontier Counties on November 20, 1939, and January 25, respectively, on the infestation of houses. Information requested on January 12 from Douglas County as to eradication from a chicken house.

TROPICAL RAT MITE (Liponyssus bacoti Hirst)

District of Columbia. F. C. Bishopp (March): Rat mites caused much annoyance and suffering to the occupants, especially the small children, in an apartment house in Washington. Occupants have been severely bitten, and the babies are said to have a rash resulting from the attack of these mites which are present in great numbers. (Det. by H. E. Ewing.)

South Carolina. L. Banov (February 25): Specimens from home at Charleston where occupants have been severely annoyed and bitten. (Det. by H. E. Ewing.)

Louisiana. F. C. Bishopp (February): A severe mite infestation occurred in a home in New Orleans. "The mites are very abundant and are sucking the blood from the residents." (Det. by H. E. Ewing.)

Illinois. F. C. Bishopp (February 27): Report received from Chicago of occurrence in a basement, where they were very annoying.

Missouri. F. C. Bishopp (February 27): Report from Saint Louis, indicating that these mites were found in an office, where control measures had been used early in December 1939 against previous insect annoyance.

CAT FLEA (Otiocephalides felis Bouche)

Ohio. F. C. Bishopp (February 27): Report of occurrence in a house in Newton Falls; the family was bitten and otherwise annoyed.

MOSQUITOES (*Culicinae*)

Missouri. L. Haseman (February 23): During the middle of February, mosquitoes which so frequently are found hibernating in basements in central Missouri, began to break their winter hibernation and are becoming annoying. Particularly true with nonanopheline species.

A SAND FLY (*Culicoides furens* Poey)

Florida. J. B. Hull (January): Active and numerous enough for collections to be made on the island opposite Fort Pierce, on the east coast, on January 1, 11, 12, and 19. Only a few reports of annoyance received from residents on the mainland.

FUNGUS GNATS (Mycetophilidae)

Utah. G. F. Knowlton (February 12): Reported from Logan that fungus gnats, coming into basements from adjoining potato storage cellars, are causing serious annoyance in two houses.

BODY LOUSE (*Pediculus humanis corporis* Deg.)

Oregon. H. H. Stage (February 1): A small shack in Sullivan's Gulch, Portland, was severely infested. (Det. by Helen L. Trembley.)

BOXELDER BUG (*Leptocoris trivittatus* Say)

Missouri. L. Haseman (February 23): Increasing number of complaints during February.

Nebraska. M. H. Swenk (February 20): Reported as very annoying in a house in Saline County on December 1, 1939.

Utah. G. F. Knowlton (February): Annoyance caused in houses at Milford on February 21. Unusually heavy populations reported by some residents. Very abundant and annoying in many buildings from February 14 to 24 at Logan, especially during warmer periods.

Nevada. G. G. Schweis (February 21): These bugs apparently have wintered well in northern and western Nevada, and some complaints are being received as to invasions in buildings.

BLACK WIDOW SPIDER (*Latrodectus mactans* F.)

Utah. G. F. Knowlton and B. A. Haws (February 24): A mature female was active outdoors today in a web in a corner of a building at Logan.

CATTLE

STABLEFLY (Stomoxys calcitrans L.)

Florida. S. W. Simmons and E. E. Rogers (February 28): No adults have been observed in Bay County in nature since January 19, when a minimum temperature of 16.5° F. was recorded; although subsequently a maximum temperature of 71.5° has been reached.

SCREWWORM (Cochliomyia americana C. & P.)

Texas. D. C. Parman (January): A considerable number taken in some of the status traps, although blowfly catches during the first half of January have been rather smaller than during December. Traps had very few flies of any kind during the last half of January. It is not certain what effect low temperatures will have on the overwintering of the very high populations of C. americana present during December and early in January, but one adult emerged from a 6-inch burial test of pupae on January 31. Cases found in the vicinity of Uvalde up to January 24.

O. G. Babcock (February): Owing to cold weather blowflies are very few in number. No screwworms nor secondary screwworms (C. macellaria F.) have been observed in this section of western Texas.

BROWN WINTER TICK (Dermacentor nigrolineatus Pack.)

Texas. F. C. Bishopp (February 27): Reports from southwestern Texas indicate rather heavy infestations of many horses and cattle during January and February. Some control measures used.

SHORT-NOSED CATTLE LOUSE (Haematopinus eurysternus Nitz.)

Texas. O. G. Babcock (February 29): Normal winter development, with lice increasing in numbers. Distribution is spreading, in most cases by means of infested bulls.

POULTRY

CHICKEN MITE (Germanyssus gallinae Deg.)

Rhode Island. A. E. Stene (February 27): Report received of a house infestation. Said to be found all over the house, even in books, and to attack people, although no serious irritation seemed to follow the bites. Pigeons were present at all times.

Nebraska. M. H. Swenk (February 20): Complaint of infestation of a house in Saline County was received on December 11, 1939.

DOG

BROWN DOG TICK (Rhipicephalus sanguineus Latr.)

New York. R. Matheson (February 19): Infestations reported as follows: Skaneateles, December 23, 1939, and January 5 and 15, on dogs and in house; Nyack, January 12; Syracuse, November 1939; White Plains, September 2, 1939; and Ithaca, April 1939.

Michigan. E. I. McDaniel (December 8, 1939): Specimens being received from various parts of the State. Latest received from Grand Rapids, where they are a general household pest in some two or three isolated houses.

Illinois. C. L. Metcalf (November 20, 1939): Reported as causing a general infestation throughout a neighborhood in Highland Park, northeastern Illinois. October report indicated that it has been troublesome for a considerable time. Apparently this tick has extended its distribution in recent years.

P. C. Stone (January 21): Terrier heavily infested with adults at Trenton on January 19.

Kansas. F. C. Bishopp (January): Several infestations reported on dogs and in houses in Fort Riley and Wichita.

AMERICAN DOG TICK (Dermacentor variabilis Say)

Massachusetts. C. N. Smith (January): Routine mouse-trapping collections in all areas showed very little activity during January, only a single larva being found.

A TICK (Ixodes californicus Banks)

New York. P. Matheson (February 19): Tick from dog sent from Syracuse in April 1939. (Det. by R. A. Cooley.)

MISCELLANEOUS ANIMALS

A MITE (Ichoronyssus spiniger Ewing & Stov.)

Maryland. H. L. Dozier (February 24): Heavy infestations reported on muskrats in the locality of Cambridge by various trappers during the last week on the area of the Blackwater Refuge and adjoining. Interesting to note the persistence of these mites despite the unusually low temperatures prevailing. A few badly infested individuals found dead on the marsh. (Det. by H. E. Ewing.)

## HOUSEHOLD AND STORED-PRODUCTS INSECTS

### ANTS (Formicidae)

Virginia. F. R. Freund (February 13): Queens of Prenolepis imparis Say found swarming in a house in Richmond. Workers of Tetramorium caespitum L. were found infesting a house in Richmond. (Det. by M. R. Smith.)

Mississippi. C. Lyle (February 23): Reports of damage by Argentine ants (Iridomyrmex humilis Mayr) received from Hinds County in October, from Noxubee and Washington Counties in November, and from Scott County in December 1939. Specimens received from Hancock and Washington Counties in January and February, respectively. Report of a house as being infested with Monomorium pharaonis L. received from Clarke County in November 1939. Specimens of the fire ant (Solenopsis xyloni McCook) were sent from Leflore County in November 1939 with information that they were nesting in the walls of a house.

Louisiana. C. O. Eddy (February 24): Reported as being active again.

Nebraska. M. H. Swenk (February 20): Specimens of ants taken from a building in Douglas County in mid-December 1939 were identified as Paratrechina longicornis Latr. Specimens of Pharaoh's ant, found in a building in Douglas County, were sent for identification on February 1.

### A COCKROACH (Capucinella sp.)

Minnesota. F. C. Bishopp (January): A specimen of this genus, which is rather commonly found in Central America and the northern part of South America, was reported as taken in Minneapolis.

### COCKROACHES (Blattidae)

Mississippi. C. Lyle (February 23): Reports of houses infested with the German cockroach (Blattella germanica L.) were received from Alcorn, Oktibbeha, Hinds, and Monroe Counties during January and February.

Nebraska. M. H. Swenk (February 20): Request for information on control received from Hooker County on January 2. The oriental cockroach (Blatta orientalis L.) was found to be infesting a store in Madison County on December 4, 1939. Complaints of annoyance by B. germanica in houses in Saline, Platte, Burt, and Colfax Counties were received on November 18, 1939, January 29, January 31, and February 8, respectively.

Utah. G. F. Knowlton (January 18): German cockroaches reported as causing annoyance in a building at Tooele on January 6. Found in a restaurant at Logan today.

California. H. J. Ryan (October 19, 1939): B. germanica found in a house at Los Angeles on September 6. (Det. by V. E. Williams.)

TERMITES (Isoptera)

District of Columbia. P. A. St. George (December 19, 1939): Unusual emergence of Reticulitermes flavipes Kollar found swarming from infested baseboards in a heated basement apartment in Washington, probably owing to the unprecedentedly warm weather during the last 2 days and today. Temperatures ranged from 64° F. on December 17 to 61° today. Living winged adults brought in. Usually none emerge until late in February or in March.

Florida. J. R. Watson (February 21): Termites were swarming last week.

Alabama. J. M. Robinson (February 29): Termites were swarming in Auburn on February 28.

Mississippi. C. Lyle (February 23): Specimens of workers and soldiers of Reticulitermes sp., probably flavipes, were sent in early in January from Jackson County. Reports of injury received from Bolivar, Chickasaw, Coahoma, Hinds, Jones, Leflore, Newton, Panola, Quitman, Scott, Stone, and Washington Counties between October 24, 1939, and February 8.

Utah. G. F. Knowlton (January 31): Termites have destroyed some of the woodwork and damaged other parts of it in a house at Provo.

CARPET BEETLES (Dermestidae)

Nebraska. M. H. Swenk (February 20): Complaint from Douglas County on November 30, 1939, of a pantry as being infested with Anthrenus verbasci L. and A. scrophulariae L. Black carpet beetles (Attagenus piceus Oliv.) reported as injurious in a house in Douglas County on November 26.

CIGARETTE BEETLE (Lasioderma segricorne F.)

Nebraska. M. H. Swenk (February 20): Complaints of infestations of upholstered furniture were received from Saline, Douglas, and Lancaster Counties on November 28 and December 20, 1939, and January 12, respectively. Complaint on November 30 from Douglas County of infestation of a pantry, together with other insects.

BROWN SPIDER BEETLE (Ptinus brunneus Duft.).

Mississippi. C. Lyle (February 23): About 40 adults received in January from Warren County, with information that they were found in a house.

DRUG STORE WEEVIL (Stegobium paniceum L.)

Nebraska. M. H. Swenk (February 20): Report of infestation in a pantry in Douglas County on November 30, 1939.

Washington. C. Burnside (January): Specimens came from dried red peppers purchased at a roadside stand in Yakima Valley, Yakima.

Oregon. R. L. Post (November 26): Samples of wafers and bird food, which were heavily infested, were sent in by a Portland company. The bird food originally came from California.

A POWDER POST BEETLE (Lyctus planicollis Lec.)

Nebraska. M. H. Swenk (February 20): Specimens, taken from a new oak floor of a house built in the fall of 1939 in Box Butte County, were received on January 29, with the report that they were increasing and spreading very rapidly. This represents a new northwestern record of this pest for the State.

A TENEBRIONID (Cynacus angustus Lec.)

Washington. M. C. Lane (February 27): Found for the first time at Walla Walla, emerging in a newly constructed house, probably an accidental occurrence, as no signs of breeding within the house could be found. (Det. by M. H. Hatch.)

INDIAN-MEAL MOTH (Plodia interpunctella Hbn.)

New Jersey. H. C. Donohoe (February 17): Larva recently removed from an externally sound-appearing pecan at Trenton. For the writer this is a new natural food record for this species.

Nebraska. M. H. Swenk (February 20): Found infesting stored corn in Washington County on November 24, 1939. Specimens sent in from Douglas County on January 12, with the report that they had been found in a trunk stored in a barn in which grain was in storage.

Utah. G. F. Knowlton (February 22): Bran damaged in storage in a mill at Cedar City.

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

New Jersey. H. C. Donohoe (March 1): A few ears of multicolored corn, presumably "Indian corn," held in a paper bag in an office at White Horse, were submitted recently. Practically every kernel is infested.

CASEBEARING CLOTHES MOTH (Tinea pellionella L.)

Utah. G. F. Knowlton (December 19, 1939): Woolens and tanned rabbit skin fur damaged in a house at Logan. Damage to overstuffed furniture often reported.

BEAN WEEVIL (Acanthoscelides obtectus Say)

Utah. G. F. Knowlton (February 24): Examination revealed from 10 to 15 percent of beans from Logan, Cedar City, and Morgan to have been damaged.

#### DRIED FRUIT BEETLE (Carpophilus hemipterus L.)

California. P. Simmons (February 2): This insect survived the winter in average numbers but did comparatively small damage to the fig crop in 1939 in Fresno and Merced Counties.

#### STORED GRAIN PESTS

Illinois. W. P. Flint (February 23): Continued activity in corn stored in farmers' bins and in elevators and steel bins by the rice weevil (Sitophilus oryzae L.) throughout the winter. Recent samples show low mortality of corn pests in infested bins of shelled corn. Temperatures of about 40° F. were registered in most of these bins during the coldest weather of January and February, although temperatures outside were -10° F., or lower.

Mississippi. C. Lyle (February 23): Adults of the red flour beetle (Tribolium castaneum Host.) were found in gin trash in Jackson County, and under torn wrappings on cured hams in Pike County in November 1939.

Missouri. L. Haseman (February 23): During February some complaints have come in, particularly where pests are present in scaled cribs and granaries, although owing to the winter cold in unheated buildings, activity is at a standstill.

Nebraska. M. H. Swenk (February 20): Specimens of the cadelle (Tenebroides mauritanicus L.) were sent in from Douglas County on January 12; found in a trunk stored in a barn where grain was in storage.

Montana. D. J. Pletsch (February 19): Specimens of Gnathocerus cornutus F. reported as infesting various grains in warehouses at Deer Lodge. Extent of damage unknown. This appears to be a new record for the State. Wheat badly damaged where Cathartus advena Waltl. is numerous. Control measures used in at least one instance. No apparent damage at Billings and Bozeman. (Det. by H. B. Mills.)

#### SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis L.)

Utah. G. F. Knowlton (February 22): Bran heavily infested in storage in a building at Nephi on February 5. Stored bran damaged at Cedar City.

#### AN ORTALID (Chrysomyza demandata F.)

Nebraska. M. H. Swenk (February 20): Maggots, taken on December 23, 1939, from silage in Scotts Bluff County, forwarded for identification.

#### SPECIAL NOTE

Oregon. H. H. Stage (January 30): Great numbers of Hippodamia convergens Guer. were coming out of hibernation over a strip of ground 50 feet long and 25 feet wide, on the sunny side of a small canyon at Bull Run Power Plant. From 2 to 300 individuals found. A resident had noticed them in this location in previous years.